

Recovery Plan Action Status

Plan Name: Spruce-Fir Moss Spider

Plan Status: Final

Plan Date: 11-Sep-98

Lead Agency: USFWS

Lead Office: Asheville Ecological Services Field Office

(258-3939)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spruce-fir moss spider (Microhexura montivaga)	1	1.1	Enforce laws protecting the species and its habitat	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, State Conservation Agencies, Federal Agencies	Other: Regulations	Internal Field Assistance, Internal Technical Assistance	This task is continuous and will be necessary and cannot be completed until species is recovered/delisted
Spruce-fir moss spider (Microhexura montivaga)	1	1.2	Conduct life history research.	Partially Complete	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, State Conservation Agencies	Research: Demographic Studies, Research: Habitat Requirements, Research: Habitat Status, Research: Population Surveys, Research: Predation	Contract, Species Expert	Some information on reproduction and growth has been collected however, there are numerous aspects of the species' life history that remain to be studied.
Spruce-fir moss spider (Microhexura montivaga)	1	1.3	Characterize the species habitat requirements	Partially Complete	FY 2007		U.S. Fish and Wildlife Service, State Conservation Agencies, Federal Agencies	Research: Habitat Requirements	Contract, Species Expert	Information on habitat and microhabitat (including forest types, substrate and bryophytes where species found) have been collected across the species known range; still need detailed information on additional biotic and abiotic conditions of occupied habitat
Spruce-fir moss spider (Microhexura montivaga)	2	1.5	Determine number of individuals required to maintain viable population	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Contract	Research: Genetics	Contract	Studies of non-lethal means of gathering necessary genetic information for determining genetic health of populations are underway (initial efforts were unsuccessful but new techniques were initiated in 2009).

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Spruce-fir moss spider (Microhexura montivaga)	2	2	Search for additional populations and suitable habitat for reintroduction	Ongoing Current	FY 2007	FY 2009	U.S. Fish and Wildlife Service, State Conservation Agencies, Contract , Federal Agencies	Research: Demographic Studies, Research: Population Surveys	Contract, Graduate Student, Species Expert, Volunteer	surveys for additional populations and potential habitat for reintroduction have been conducted in 1997-1998 and in the GSMNP 2001 - 2004, and were initiated again in 2007-2009; surveys completed in 2009 identified new occurrences of the species in the Black Mountains, Plott Balsam Mountains, and Virginia Balsam Mountains
Spruce-fir moss spider (Microhexura montivaga)	1	3	Develop artificial holding and propagation techniques	Discontinued	FY 1995 - FY 1999	FY 1995 - FY 1999	U.S. Fish and Wildlife Service, Contract	Management: Propagation, Research: Propagation	Volunteer	Efforts to artificially hold and propagate the species have been unsuccessful and have been discontinued until a larger donor population is found/established.
Spruce-fir moss spider (Microhexura montivaga)	2	4	Develop techniques and reintroduce species back into historic habitat and, if needed, augment existing populations.	Not Started			U.S. Fish and Wildlife Service, Contract	Work type not yet selected	Labor type not yet selected	
Spruce-fir moss spider (Microhexura montivaga)	2	5	Develop and utilize cryopreservation techniques.	Not Started			U.S. Fish and Wildlife Service, Contract	Work type not yet selected	Labor type not yet selected	
Spruce-fir moss spider (Microhexura montivaga)	2	6	Develop and implement a monitoring program	Ongoing Current	FY 2008		U.S. Fish and Wildlife Service, State Conservation Agencies, Federal Agencies	Management: General, Research: General	Labor type not yet selected	conducted as funding and availability of qualified personnel allow; latest population and habitat evaluation study was initiated in 2007 and completed in 2009
Spruce-fir moss spider (Microhexura montivaga)	3	7	Annually assess recovery program and modify program and plan where required	Ongoing Current	FY 2008		U.S. Fish and Wildlife Service, State Conservation Agencies, Federal Agencies	Management: General	Labor type not yet selected	Conducted yearly